1(

RAW SEQUENCE LISTING   DATE: 10/31/2003
PATENT APPLICATION: US/09/483,184A   TIME: 09:44:06

      Input Set : A:\DART1110-1.ST25.txt
      Output Set: N:\CRF4\10312003\I483184A.raw

 3 <110> APPLICANT: DARTMOUTH COLLEGE
 4   CRAIG, Ruth W.
 5   BINGLE, Colin D.
 6   WHYTE, Moira
 8 <120> TITLE OF INVENTION: Mcl-1 GENE REGULATORY ELEMENTS AND A PRO-APOPTOTIC Mcl-1 VARIANT
10 <130> FILE REFERENCE: DART1110-1
12 <140> CURRENT APPLICATION NUMBER: US 09/483,184A
13 <141> CURRENT FILING DATE: 2000-01-14
15 <150> PRIOR APPLICATION NUMBER: US 60/166,113
16 <151> PRIOR FILING DATE: 1999-11-16
18 <160> NUMBER OF SEQ ID NOS: 31
20 <170> SOFTWARE: PatentIn version 3.1
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 8253
24 <212> TYPE: DNA
25 <213> ORGANISM: Homo sapiens
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32 ggagtttgag accagcctgg ccaacatggt gaaaccacat tgtcaggcct ctgagcccaa   180
34 gccaagccat cgcatcccct gtgacttgca cgtatacatc cagatggcct gaagtaactg   240
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38 ttctgcccca cccgaactga tcaatgtact ttgtaatctc ccccaccctt aagaaggttc   360
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42 attgctctca acttcaccac ctatcccaaa acctgtaaga actaatgata atccatcacc   480
44 ctttgctgac tctcttttcg gactcagccc gcctgcaccc aggtgaaata aacagccatg   540
46 ttgctcacac aaagcctgtt tggtggtgtc ttcacacaga cgcgcatgaa acacatctct   600
48 actaaaaata caataatcag ctgggcgagg tggctcacag ctgtaatctc agcactttgg   660
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52 tgaaaacccc atctctacca aaaatacaaa aactagccag atgtggtggc gcacgcctgt   780
54 aatcccagct actcgggagg ctgaggtacc gaatcgtctg aacgtgggaa gtggagcttg   840
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60 gtaaatagca ccaaagacta tggaacagag atgggagaag caagcaggga ggcaggaata   1020
62 gtttagctgt ggcagtttta gcttagtcca cttacataaa tggttcttta gggtagcacg   1080
64 tggagcatcc tcatttccaa acattggact gagagtagag agctgtgcaa ataaccaca   1140
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68 actgaacttc cccgtcctct tccttcaacc cctgtgttag tcaatggttg aaattttgat   1260
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 84 ggggtcttcc ccagttttct cagccaggcg gcggcggcga ctggcaatgt ttggcctcaa  1740
 86 aagaaacgcg gtaatcggac tcaacctcta ctgtggggggg gccggcttgg gggccggcag  1800
 88 cggcggcgcc acccgcccgg gagggcgact tttggctacg gagaaggagg cctcggcccg  1860
 90 gcgagagata gggggagggg aggccggcgc ggtgattggc ggaagcgccg cgcaagccc  1920
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144 agggttttcg tcttttacct catgggaact ctggaagtcc ttttgttagg ataaatccta  3540
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Input Set : A:\DART1110-1.ST25.txt
Output Set: N:\CRF4\10312003\I483184A.raw

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178 gacggaaggc tcagtaatta gttatgaata tggatatcct caattcttaa gacagcttgt 4560
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RAW SEQUENCE LISTING   DATE: 10/31/2003
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Input Set : A:\DART1110-1.ST25.txt
Output Set: N:\CRF4\10312003\I483184A.raw

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280 cagacctgag ccactgcgcc cagccttgat tttgaggtaa gagggtactt acagcagtta   7620
282 tctatcataa cacctaaata atacctaaag ttaaagagtt ttgatgaagt tcttggcagc   7680
284 agtgcttttc cccttctgct ttccaaaagg aggtaaaaag aagccagtca atttcaaaaa   7740
286 ccctatcctg cttttatttt cagctacctt gaaagtgagc tgaatcacca tggaaatgtg   7800
288 caaatgtgag gtttgcatac ttggtttttaa gccctgagca ccatatgcta atcaggcaat   7860
290 caggattctg tgcctccctg cagtcagttg catttctatt taaaagtgca ttttggtttg   7920
292 gaagcccctt ttggagccta actaccaaaa ggcagcaact ttttgtatca ttacaaagaa   7980
294 agctgtgtaa gtgcactccc aagcaaaggt gtggtaggag agtagcagcc acagaggacc   8040
296 caagcccaag tcttggcctg agttaagtta gtgctattgc tcccattgac gtgctatgat   8100
298 gtgaagccgt ttctggtaca gtgttccttt gctcagcacc ttaaaagctt ggatttaata   8160
300 gtaactgggt aaccttaatc agtagtcaga attatcaaca ctttgcttta tttgacacaa   8220
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306 <211> LENGTH: 350
307 <212> TYPE: PRT
308 <213> ORGANISM: Homo sapiens
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317             20                  25                  30
320 Gly Arg Leu Leu Ala Thr Glu Lys Glu Ala Ser Ala Arg Arg Glu Ile
321         35                  40                  45
324 Gly Gly Gly Glu Ala Gly Ala Val Ile Gly Gly Ser Ala Gly Ala Ser
325     50                  55                  60
328 Pro Pro Ser Thr Leu Thr Pro Asp Ser Arg Arg Val Ala Arg Pro Pro
329 65                  70                  75                  80
332 Pro Ile Gly Ala Glu Val Pro Asp Val Thr Ala Thr Pro Ala Arg Leu
333             85                  90                  95
336 Leu Phe Phe Ala Pro Thr Arg Arg Ala Ala Pro Leu Glu Glu Met Glu
337             100                 105                 110
340 Ala Pro Ala Ala Asp Ala Ile Met Ser Pro Glu Glu Glu Leu Asp Gly
341         115                 120                 125
344 Tyr Glu Pro Glu Pro Leu Gly Lys Arg Pro Ala Val Leu Pro Leu Leu
345     130                 135                 140
348 Glu Leu Val Gly Glu Ser Gly Asn Asn Thr Ser Thr Asp Gly Ser Leu
349 145                 150                 155                 160
352 Pro Ser Thr Pro Pro Pro Ala Glu Glu Glu Asp Glu Leu Tyr Arg
353                 165                 170                 175
356 Gln Ser Leu Glu Ile Ile Ser Arg Tyr Leu Arg Glu Gln Ala Thr Gly
357             180                 185                 190
360 Ala Lys Asp Thr Lys Pro Met Gly Arg Ser Gly Ala Thr Ser Arg Lys
361         195                 200                 205
364 Ala Leu Glu Thr Leu Arg Arg Val Gly Asp Gly Val Gln Arg Asn His
365     210                 215                 220
368 Glu Thr Val Phe Gln Gly Met Leu Arg Lys Leu Asp Ile Lys Asn Glu
369 225                 230                 235                 240
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Input Set : **A:\DART1110-1.ST25.txt**
Output Set: **N:\CRF4\10312003\I483184A.raw**

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373               245             250             255
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377               260             265             270
380 Phe Val Ala Lys His Leu Lys Thr Ile Asn Gln Glu Ser Cys Ile Glu
381           275             280             285
384 Pro Leu Ala Glu Ser Ile Thr Asp Val Leu Val Arg Thr Lys Arg Asp
385       290             295             300
388 Trp Leu Val Lys Gln Arg Gly Trp Asp Gly Phe Val Glu Phe Phe His
389 305               310             315             320
392 Val Glu Asp Leu Glu Gly Gly Ile Arg Asn Val Leu Leu Ala Phe Ala
393               325             330             335
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397               340             345             350
400 <210> SEQ ID NO: 3
401 <211> LENGTH: 271
402 <212> TYPE: PRT
403 <213> ORGANISM: Homo sapiens
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412               20              25              30
415 Gly Arg Leu Leu Ala Thr Glu Lys Glu Ala Ser Ala Arg Arg Glu Ile
416           35              40              45
419 Gly Gly Gly Glu Ala Gly Ala Val Ile Gly Gly Ser Ala Gly Ala Ser
420       50              55              60
423 Pro Pro Ser Thr Leu Thr Pro Asp Ser Arg Arg Val Ala Arg Pro Pro
424 65              70              75              80
427 Pro Ile Gly Ala Glu Val Pro Asp Val Thr Ala Thr Pro Ala Arg Leu
428               85              90              95
431 Leu Phe Phe Ala Pro Thr Arg Arg Ala Ala Pro Leu Glu Glu Met Glu
432               100             105             110
435 Ala Pro Ala Ala Asp Ala Ile Met Ser Pro Glu Glu Glu Leu Asp Gly
436           115             120             125
439 Tyr Glu Pro Glu Pro Leu Gly Lys Arg Pro Ala Val Leu Pro Leu Leu
440       130             135             140
443 Glu Leu Val Gly Glu Ser Gly Asn Asn Thr Ser Thr Asp Gly Ser Leu
444 145             150             155             160
447 Pro Ser Thr Pro Pro Pro Ala Glu Glu Glu Asp Glu Leu Tyr Arg
448               165             170             175
451 Gln Ser Leu Glu Ile Ile Ser Arg Tyr Leu Arg Glu Gln Ala Thr Gly
452               180             185             190
455 Ala Lys Asp Thr Lys Pro Met Gly Arg Ser Gly Ala Thr Ser Arg Lys
456           195             200             205
459 Ala Leu Glu Thr Leu Arg Arg Val Gly Asp Gly Val Gln Arg Asn His
460       210             215             220
463 Glu Thr Val Phe Gln Gly Trp Val Cys Gly Val Leu Pro Cys Arg Gly
464 225               230             235             240
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 10/31/2003
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Input Set : A:\DART1110-1.ST25.txt
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ase Note:
 of n and/or Xaa have been detected in the Sequence Listing. Please review the
uence Listing to ensure that a corresponding explanation is presented in the <220>
<223> fields of each sequence which presents at least one n or Xaa.

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#:21; N Pos. 22
#:22; N Pos. 29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48
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#:24; N Pos. 69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88
#:24; N Pos. 89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105
#:24; N Pos. 106,107,108,109,110,111,112,113,114,115,116,117,118,119,120
#:24; N Pos. 121,122,123,124,125,126,127,128,129,130,131,132,133,134,135
#:24; N Pos. 136,137,138,139,140,141,142,143,144,145,146,147,148,149,150
#:24; N Pos. 151,152,153,154,155,156,157,158,159,160,161,162,163,164,165
#:24; N Pos. 166,167,168,169,170,171,172,173,174,175,176,177,178,179,180
#:24; N Pos. 181,182,183,184,185,186,187,188,189,190,191,192,193,194,195
#:24; N Pos. 196,197,198,199,200,201,202,203,204,205,206,207,208,209,210
#:24; N Pos. 211,212,213,214,215,216,217,218,219,220,221,222,223,224,225
#:24; N Pos. 226,227,228,229,230,231,232,233,234,235,236,237,238,239,240
#:24; N Pos. 241,242,243,244,245,246,247,248,249,250,251,252,253,254,255
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#:24; N Pos. 286,287,288,289,290,291,292,293,294,295,296,297,298,299,300
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 10/31/2003
PATENT APPLICATION: **US/09/483,184A**   TIME: 09:44:07

Input Set : **A:\DART1110-1.ST25.txt**
Output Set: **N:\CRF4\10312003\I483184A.raw**

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#:24; N Pos. 376,377,378,379,380,381,382,383,384,385,386,387,388,389,390
#:24; N Pos. 391,392,393,394,395,396,397,398,399,400,401,402,403,404,405
#:24; N Pos. 406,407,408,409,410,411,412,413,414,415,416,417,418,419,420
#:24; N Pos. 421,422,423,424,425,426,427,428,429,430,431,432,433,434,435
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